

## TEST SYSTEM DYNAMIC RANGE EXTENSION THROUGH COMPRESSION COMPENSATION

### ABSTRACT OF THE INVENTION

A method for extending dynamic range and a test system with extended dynamic range compensate for a compression effect on measured data caused by a receiver channel of the test system being compressed. The measured data is magnitude and phase data for one of a device under test and a signal under test that is measured using the test system. The method comprises characterizing a first channel of the test system for first channel compression responses to magnitude and phase, characterizing a second channel of the test system for second channel compression response to magnitude and phase, and compensating to correct for the effect of compression on the measured data. The test system comprises a receiver channel, and a computer program stored in memory that implements the method. Test systems with a plurality of receiver channels may be characterized in pairs.